UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/608,938	06/30/2000	D'Arcy M. Tyrrell III	062986.0188	1501

7590 04/17/2003

Baker Botts LLP
2001 Ross Avenue
Dallad, TX 75201-2980

EXAMINER
CHOUDHARY, ANITA

ART UNIT	PAPER NUMBER
2153	9

DATE MAILED: 04/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/608,938	TYRRELL, D'ARCY M.	
	Examiner	Art Unit	
	Anita Choudhary	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other:

DETAILED ACTION

Claims 1-20 are pending.

Priority

Claim to provisional application 60/198313 and 60/198314 have been made in this application.

The effective filing date for the subject matter defined in the pending claims in the application is April 19, 2000.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 recites the limitation "the supplier" and "the outsourced job queue" in line 5 and 8 of the claim, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al (US Patent 6,438,576), hereinafter referred to as Huang.

Huang discloses a method and apparatus for distributing rendering of data in collaborative data network (abstract). Huang shows:

- Means for a local rendering system (proxy server 110-112) operable to receive and render a render job (client request), the render job having at least one render frame (object retrieved) and an associated job description (object specific descriptor information) (col. 5 line 20-53).
- Means for at least one remote rendering system (proxy 110-112) operable to receive from the local rendering system (local proxy 110-112) the render job (client request) and render the rendering job and further operable to return the result of the render job to the local rendering system (col. 5 lines 53- col. 6 line 23, col. 7 line 43- col. 8 line 11).
- Means for the local rendering system comprising a means for a first schedule server operable to determine, based at least in part on the job description, whether to render the job locally or to send the render job to the at least one remote rending system (col. 8 lines 30-49, col. 9 lines 15-42).
- The first schedule server means operable to collect and deliver to a remote rendering system, via a first hot folder (RHI) and a communication medium (network 101), information associated with the render job (col. 5 lines 42-col. 6 line 4, col. 7 line 34- col. 8 line 11).

In referring to claim 2, Huang shows all proxy server including local and remote having the same capabilities including the at least one remote rendering system (proxy 110-112) comprising of a means for a second schedule server, means for a resource server and a rendering server operable to create render slots (categories) for processing the render job (col. 8 lines 30-49, col. 9 lines 56- col. 10 line 11).

In referring to claim 14, Huang shows a rendering system for:

- Receiving a render job (object request) submitted by a client at a first rendering site (proxy 110-112), the render job associated with at least one file stored at the first rending site (copy of object in local cache), the file storing information necessary, to render the render job (RHI) (col. 5 lines 42-65, col. 7 lines 43-45).
- Means for transferring the render job from the first rendering site to a second rendering site (proxy server 110-112), the second rendering site located remote from the first rendering site (col. 6 lines 9-23).
- Transmitting a copy of the associated file from the first rendering site to the second rendering site (col. 7 lines 57-61, col. 11 lines 15-55).
- Storing a copy of the associated file from the first rendering site in a secure location inaccessible to entities other than the client (col. 8 lines 1-11)
- Rendering the render job at the second rending site to produce a render result (col. 7 lines 1-22).

In referring to claim 15, Huang shows redirecting request by one render server to access the associated file from the central file storage location (cache) to the secure location (col. 7 line 43-col. 8 line 11).

In referring to claim 16, Huang shows redirecting request by render server (proxy) to write an output file associated with the render job to a particular central storage area (cache) to the secure location (col. 11 lines 15-55).

In referring to claim 17, Huang shows storing the results of the rendering job in a secure location (cache) (col. 8 lines 1-11).

In referring to claim 18, Huang shows transmitting a copy of the associated file comprises transmitting a copy of the file via a first hot folder (RHI) in the first rendering site (local proxy) to a second hot folder (RHI) on a second rendering site (proxy 110-112) (col. 7 line 23- col. 8 line 11).

In referring to claim 19, Huang shows transmitting a copy of the result from the secure location on the second rendering site (proxy) to a hot folder on the first site (col. 8 lines 1-11, fig. 4).

In referring to claim 20, Huang shows a first rendering site comprises a means for to determine whether to render the render job at the first rendering site or the second rendering site (col. 7 line 46- col. 8 line 11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-5, 7-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Krum (US Patent 6,539,445).

In referring to claim 3, Huang shows substantial features of the claimed invention, including means for a schedule server at a remote location (col. 8 lines 30-49) and means for a second hot folder (updated/modified RHI, col. 8 lines 1-10). Although Huang shows substantial features of the claimed invention, Huang does not show rendering system distributing render jobs to a plurality of servers. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Huang as evidenced by Krum.

In an analogous art, Krum discloses a system for distributing jobs according to a method for load balancing between a plurality of servers (fig 12). Krum shows:

- Distribution of jobs to plurality of systems based on information provided in the job description and further based on resource information stored in resource database (job statistics database) on a resource server (application server) (col. 5 lines 30- col. 6 line 18).
- The resource information including availability information and specifications associated with the plurality of render slots (job queue) created by the plurality of systems (col. 3 lines 14-59, col. 5 line 50- col. 6 line 4).

Given these features, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Huang by employing the system disclosed by Krum, in order to load balance a plurality of servers and requested jobs so that server resources are best utilized.

In referring to claim 4, Krum shows a first server comprising a new job queue (job database, 202) and outsourced job queue (distribute job component, 203), the server operable to place a new job in the new job queue (202) and to move the new render job from the new job queue (202) and to place it in the outsourced job queue (203) when the job description associated with the job specifies a remote system to execute the job (col. 5 lines 42-57).

In referring to claim 5, Krum shows a system wherein second server (farm system 300) comprises an active job queue (job queue 305), the second server operable to place the new job, upon receiving it from the local system (Master farmer system 200), into said active job queue based, in part, upon the priority of the job and other information provided by the job description (fig. 3, col. 6 lines 19-50).

In referring to claim 7, Huang shows a system wherein the second schedule server (proxy 110-112) is operable to deliver the completed render job to the local rendering system via the second hot folder (modified RHI) and the communications medium (network 101) (col. 8 lines 1-10).

In referring to claim 8, Huang shows wherein the first schedule server (proxy 110-112) is operable to receive the completed job via the first hot folder (RHI), place the results on a storage device (cache) and notify a supplier of the render job of the completion of the render job, the first schedule server further operable to remove the render job from the outsourced job queue (col. 7 line 43- col. 8 line 11).

In referring to claim 9, Huang shows substantial features of the claimed invention including providing a render job (object retrieved) having at least one render frame and an associated job profile (object specific descriptor information) (col. 5 line 20-53). Huang does

not explicitly show job queue. Nonetheless having a job queue for distribution of jobs is well known in the art, and would have been an obvious modification to the system disclosed by Huang as shown by Krum.

In an analogous art, Krum discloses a system for distributing jobs according to a method for load balancing between a plurality of servers (fig 12). Krum shows:

- Inserting a job in a new job queue (job database 202) associated with a first schedule server coupled to local rendering system (master farmer system 200) (col. 5 lines 30-44).
- Removing the render job from the new job queue and placing it in an outsourced job queue (305) when the job description specifies remote rendering (col. 6 lines 19-50).
- Advancing the job in the outsourced job queue as other jobs are removed from the outsourced job queue (305).
- Delivering the job from a local machine (client 101) via a first communications medium (106) to at least one remote machine (102) for processing (fig. 1 col. 4 line 48- col. 5 line 13).
- Distributing the job via a second communications medium (107) to a plurality of render services (104) coupled with the remote machines based at least in part on the job profile (fig. 1 col. 4 line 48- col. 5 line 13).

Given these features, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Huang by employing the system disclosed by Krum in order to better distribute high volumes of processing requests from users to service systems.

In referring to claim 10, Huang shows the job profile based in part on the job description provided by the client (object specific descriptor information) (col. 5 lines 42-55)

In referring to claim 11, Huang shows delivering the render job and information for rendering the render job from a first hot folder (RHI) at the first server (local proxy) to a second hot folder (modified RHI) coupled to the second server (proxy) (col. 7 line 34- col. 8 line 11). Furthermore Krum shows the paling of the job in an active job queue (305) associated with the second schedule server based in part on information provided in the job description and priority (col. 5 line 19-50).

In referring to claim 13, Huang shows delivering the completed render job back to the local rendering system (proxy) from the second schedule server via the second hot folder to the first schedule server via the first hot folder (RHI) (col. 8 lines 1-11). Furthermore, Krum shows queue for active job at the second server (fig 3, 305) and means for removing the job from the outsourced job queue and notifying the client of the completion of the job (col. 6 lines 19-50).

Claims 6 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Krum in further view of Fontana et al. (6,167,563).

Huang in view of Krum show substantial features of the claimed invention.
In referring to claim 12, Krum shows distributing job to a plurality of server coupled to the system (application server system 200) based in part on resource information stored in a resource database (206) associated with a resource server, the resource information including availability information associated with a plurality of render slots created by the plurality of render servers (proxy server 110-112) (col. 5 line 30- col. 6 line 50). Although Huang in view Krum show

these features they do not explicitly show I/O wrapper. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Huang in view of Krum as evidenced by Fontana.

In an analogous art Fontana shows a method for executing application between client and server. Fontana shows:

Placing an I/O wrapper around a component on the server to allow any files accompanying the component to be monitored only by said component (col. 7 lines 44-67).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Huang in view of Krum, by employing the features shown by Fontana in order to monitor I/O operations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AC
April 11, 2003

GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100